



# IN DEPTH

## news



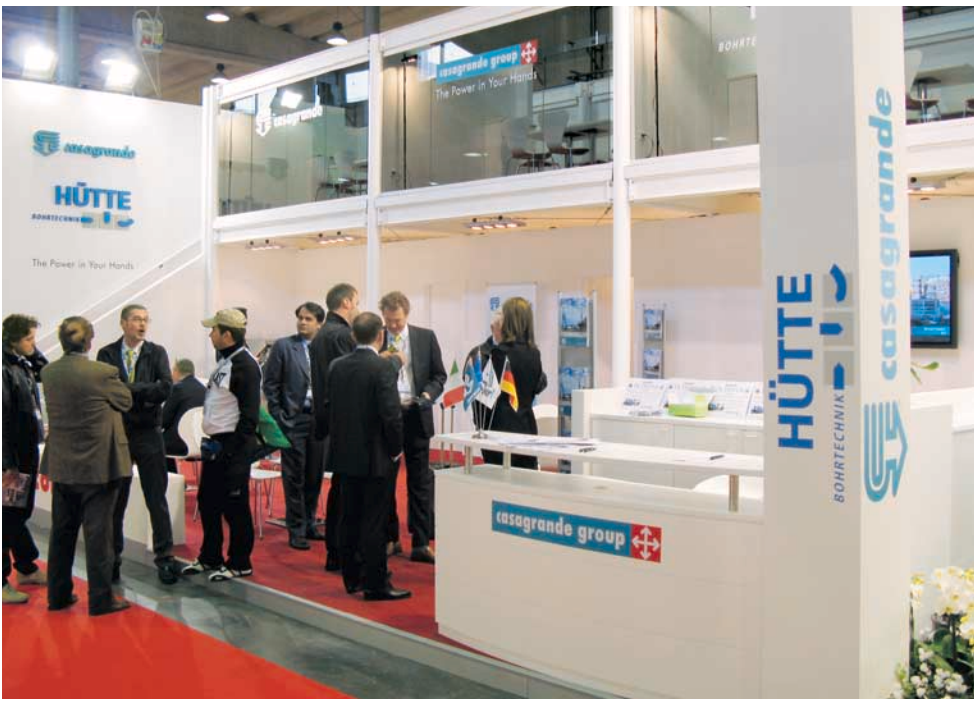
The news letter for customers, agents, staff and friends

December 2008  
n. 7

COMPANY'S NEWS

## Casagrande group was present at the 30<sup>th</sup> edition of the Geofluid Expo, focused on the Geothermal Energy.

Casagrande group was present at the 30th edition of the Geofluid Expo (October 1st to the 4th, 2008) which registered the record attendance of approximately 12,000 participants, a 10% increase from last year's edition.



This year's exhibition focused on the Geothermal Energy, a technology on which Casagrande group has been a pioneer. Our innovative decision to present a "green" geothermal drilling rig was based on the concept to identify our equipment as environmentally friendly ... that can "fit" into our beautiful earth!

The strategic choice of Marketing Department was to deliver a new friendly impression to all visitors showing a "spectacular" rig through some special effects and colors.

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The HBR 504 GT presented has a 147 kW diesel engine and a double rotary head with preventer with a radio controlled system. The rig was presented at the Geofluid expo with the geothermal application set-up, but, as most of the Casagrande-Hutte rigs, it can also be used for micropiling, anchors and jet grouting applications.



COMPANY'S NEWS

## Training and certifying of drilling operators.

The goal of the attendees was to obtain the "Small and Large Diameter Excavation Operator License" requested in various countries of the European Community.

Fontanafredda hosted the first of what we believe will be a series of new courses for operators' knowledge and

training of small and large drilling equipment organized with AIF (in association with the Italian State Association for the training of construction personnel). During the 5 days program of each course, a total of 25 attendees were guests of Casagrande and participated to the courses taught by the Belluno's Operator Technical Institute and Casagrande's instructors. The goal of the attendees was to obtain the "Small and Large Diameter Excavation Operator License" requested in various countries of the European Community.



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## Turin's Underground Subway System

Casagrande's C7 and C14 drill rigs were used in Turin for the installation of the 240 mm micropiles at the stations, and 90 mm diameter drilling required for the installation of re-groutable pipes along the tunnel alignment.

When the Winter Olympic Games took place in Turin (Piedmont-Italy) in 2006, the world was impressed by the incredible organization and the infrastructures created for the important event. One of the organizers' challenges was to insure easy and fast inner city public transportation to the fans coming from all the participants' nations.

Veicolo Automatico Leggero) was built in a very short time.

The newly VAL transportation system has the capacity of transporting 30000 people controlled by 750 ultra-sophisticated video camera system that insured a flawless real time monitoring of all the required traffic information.

To meet the requirements the first underground unmanned Italian automated light train system (VAL,

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Job site

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It was valued by a large number of visitors and competitors too, because it followed the exhibition's focus and main topic : the Geothermal Renewable Energy, promoting Environmental Friendly Technology and Sustainability in our industry.

The light blue color representing clear water, the green color representing the earth and the butterflies, impressed around the rig, were intended to send a message of friendly, environmentally oriented equipment and technology.

Casagrande's exposition center, furthermore, was decorated with 100



white orchids: everything was designed to "ecologically welcome" all visitors ... and to enjoy a perfectly chilled extra-dry Prosecco.

While most of the registered Geofluid visitors arrived from Europe, we have recorded the presence of a significant number of international contractors that stopped at our booth, enjoyed the rig and the always well prepared gastronomic delicacies.

As for all the other 2008 conventions and expos where Casagrande group was present, the Geofluid was a success above expectation.

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JOB SITE

# Turin's Underground Subway System and the Casagrande Equipment.

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The subway system (called Linea 1, or "Linea Uno") will be improved now with the construction of about 3000 m line and n. 6 additional station from Marconi Station to Lingotto Station that are under construction. Fondazioni Speciali S.p.A. (Noceto-Parma) is involved in the foundation and stabilization works at the stations and along the subway tunnel alignment.

**Fondazioni Speciali S.p.A.** was founded in 1987. The company developed around the concept and conviction that only highly qualified and specialized (even if small/middle size) construction companies have the possibility to succeed in the Italian Geotechnical market. Following this concept, Fondazioni Speciali researched and developed new sophisticated solutions and methods for the installation of triple jet grouting system (Kajima) applications. As drilling, grouting and tunneling specialist, Fondazioni Speciali uses multiple models of Casagrande equipment for micropiles, anchors, and jet grouting and tunneling works.

**Casagrande's C7 and C14 drill rigs** were used in Turin for the installation of the 240 mm micropiles at the stations, and 90 mm diameter drilling required for the installation of re-

groutable pipes along the tunnel alignment. A total of 45000 linear meters of micropiles and 190000 linear meters of drilling for the grouting pipes' installation have been completed using Casagrande's equipment. Both C7 and C14 models are designed for micropiles, anchors and jet grouting installation.

The foundation and consolidation works between Marconi Station and Lingotto Station started in 2007 and will last into the early months of 2009.



**casagrande group** 

Orettige Feestdagen  
새해복 많이 받으세요  
Buone Feste  
Frohe Festtage  
God Jul  
Boas Festas  
Hyvää Joulua



Vesele praznike  
よいお年を  
Καλές Γιορτές  
Meilleurs Voeux  
Felices Fiestas  
新年快乐  
Season's Greetings

The power in your hands





Season's Greetings

# HBR504GT

## Geothermal Drill Rig



# HÜTTE

BOHRTECHNIK



In depth care

[www.casagrandegroup.com](http://www.casagrandegroup.com)

*The Power in Your Hands*

# Casagrande involvement in training and certifying new drilling operators for foundation equipment.

The goal of the attendees was to obtain the "Small and Large Diameter Excavation Operator License" requested in various countries of the European Community.

The course's program was divided in:

#### Theoretical Classes:

- General Introduction of the Course
- Safety First: Analysis of the project's risks on each singular activity. Accident prevention.
- The importance of project communications.
- Drilling technologies in relation to site geology.
- Electric and electronic basic components and important related issues.
- Mechanic and hydraulic base components and important related issues.
- Importance of insuring continuous and correct maintenance to prevent damages and accidents.

#### Practical (Field) Classes:

- Maintenance
- Safety, risk analysis and accident prevention
- Hydraulic, electric and electronic circuits
- On-site oxy-acetylene application
- Equipment control and safety dispositive.
- Equipment moving, set-up and drilling start-up.
- Drilling test
- Equipment transportation

At the end of the courses, twenty-three of the twenty-five attendees received the operator's license which has 5 years validity.

Additional courses will be planned in the future in connection with the more detailed courses regularly organized by Casagrande for the clients and agents.

Casagrande's leadership in the preparation and implementation of



the program aims to prepare specialized and safety oriented personnel for the construction industry.

## AGENCIES HIGHLIGHT

# Casagrande in Iran with Behrooz Company

Behrooz Company was established in 1949 in conjunction with an Iranian-Swedish company for marketing and sales of manufactured equipment products.

Behrooz Co. later became an independent importer for other European manufactured products and in 1999 in view of the vast infrastructural development plans for the country and the need for construction machinery and equipment. At that point it was decided to concentrate the company's main goal and activities in this construction field and, in particular, specializing in foundation equipment.

With the Headquarters' support and by adopting a highly technical approach, we have succeeded in establishing Casagrande as a major and respected player while ending the existing monopoly. Now, as Casagrande's agents, we are in close contact with all contractors, consultants, and engineers who are involved in both private and public sectors.

Our technical team consists in:

- One licensed civil engineer specialized in foundation.
- Three highly experienced mechanical engineers.
- Two technicians.

Together all our personnel are very well qualified to cooperate with and advise the potential customers to select the correct foundation technology and suitable equipment and machinery for each project.

At the same time we are continuously:

- Arranging for potential customers project visits where our equipment is working

- Seminar for the Ministry of Road and Transportation
- Private seminars for construction companies and engineers



The above approach and promotion of new modern foundations work ideas resulted in the promotion of new ideas in foundation work as:

- The chance design from other methods to the more convenient diaphragm wall installed with B250-KRC2 kelly and C800-Baya semi-kelly system for metro stations project in Ahwaz;
- Plan to use the FD60 hydromill for foundation of a large shopping center in Tehran;
- The use of C6 rigs to install jet grouting treatment;
- Other foundation application using the M3, B170, B250, C850NG, Ca-Drill 18 and RM 21.

Thus, we have and will continue to put the power in our customers' hands.

## Casagrande in Iran: 2007-2008, some project details:

The following descriptions and photos are part of the main project performed by Casagrande equipment in Iran.

**Project Description:** Diaphragm walls installation for 24 metro stations.

**Location:** Ahwaz City in South West of Iran near the Persian Gulf

**Contractor:** KAYSON CO

**Details:** Metro line No. 1 & 2, started in February 2007. Total above 70,000 m2 of diaphragm wall for all wall 24 stations. Soil conditions include clay and sand combination with very high water table plus dense sandstone. Total project value is around Euros 700 Millions.

**Equipment used:** B250 with KRC hydraulic kelly clamshell, No.2 C800 with Baya hydraulic semi-kelly clamshell.

**Project description:** Drill shafts for road bridges, diameter 1200 mm, depth 30 meters.

**Location:** North of Iran, near Caspian Sea

**Contractor:** Maskan & Omran Quds

**Details:** On the new Tehran to Caspian Sea road project there are many sub contractors working on a number of small and large bridges. Despite of many existing piling equipment, Maskan & Omran decided to contractor use mechanical rotary table rigs to handle the very difficult soil and rather harsh area's weather conditions.

**Equipment used:** RM 21

**Project Description:** Anchors for the NEKA Dry Dock project.

**Location:** Caspian Sea north of Iran.



**Contractor:** Iran Marine Engineering Co

**Details:** Dia. 245 mm, 20 meters long anchors for a 300 meters long sheet piles wall in sandy soil under high water table.

**Equipment used:** No. 2 drills rig Casagrande C6

Job site